



Reel # 806

Zhukova, A. A.

ZHUKOVA, A.A., kand. med. nauk (Moskva); GUREVICH, Yu.Ya. (Moskva);
FENENKO, N.F. (Zhdanov, Donetskaya oblast', UkrSSR); GINEVSKIY,
Ya.M. (Moskva); GAGINA, T.N. (Alma-Ata); VERESHCHAGIN, N.K.,
prof. (Leningrad); ABRAMOV, L.S.; SERGEYEV, A.S. (Moskva)

New books. Priroda 54 no.8:19, 35, 70, 102, 122-125 - Ag '65.
(MIRA 18:8)

1. Institut geografii AN SSSR, Moskva (for Abramov).

ZHUKOVA, A.A.

Comparative study of lipids and lipoproteins in the blood
serum in lipoid nephrotic syndrome and atherosclerosis.
Terap. arkh. 35 no.2:70-77'63. (MIRA 16:10)

1. Iz Instituta terapii (dir. - deystvitel'nyy chlen AMN
SSSR prof. A.L.Myasnikov) AMN SSSR.
(KIDNEYS—DISEASES) (ARTERIOSCLEROSIS)
(HIPOPROTEINS) (LIPIDS)

YURKOVSKIY, A.M.; RAVKINA, L.I.; ZHUKOVA, A.A.

Problem of the allergic nature of paralysis appearing after the
administration of rabies vaccine. Zhur.nevr.i psikh. 61 no.3:
374-381 '61. (MIRA 14:7)

1. Gosudarstvennyy kontrol'nyy institut meditsinskikh i biologicheskikh preparatov imeni Tarasevicha i Institut poliomyelitisa AMN
SSSR, Moskva.

(RABIES)

(PARALYSIS)

LIVSHITS, M.L.; ZHUKOVA, A.D.; VASYUKOVA, A.N.

Standards and specifications. Lakokras. mat. i ikh prim. no.5:
71-81 '63. (MIRA 16:11)

ZHUKOVA, A.D.; IVONIN, V.I.; KAPLAN, A.Yu.; NEMIROVSKAYA, Ye.G.; NIREN-
SKII, B.R., redaktor; AYZHENSHTAT, I.I., redaktor; ZALYSHKINA, O.Ya.,
tekhnicheskii redaktor.

[Collection of standards and technical requirements for the varnish
and paint industry] Sbornik standartov i tekhnicheskikh uslovii na
produkttsiiu lakokrasochnoi promyshlennosti. Moskva, Gos. nauchno-
tekhn. izd-vo khim. lit-ry. No. 1. 1952, 516 p; No.2. 1952, 359 p;
No.3. 1952. 463 p. (MIRA 8:4)
(Varnish and varnishing--Specifications)
(Paint--Specifications)(Lacquer and lacquering--Specifications)

ZHUKOVA, A.D.; IVONIN, V.I. [deceased]; AYZENSHTAT, I.I., red.; ZAZUL'SKAYA, V.F., tekhn.red.

[Collection of standards and technical specifications for production in the paint industry] Sbornik standartov i tekhnicheskikh uslovii na produkcii lakokrasochnoi promyshlennosti. Moskva, Gos. nauchno-tekhn.izd-vo khim.lit-ry. No.4. 1959. 451 p. No.5. 1959. 499 p.
(MIRA 13:6)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye lakokrasochnoy promyshlennosti.

(Paint industry--Standards)

VASYUKOVA, A.N.; DUBOVSKAYA, Z.A.; ZHUKOVA, A.D., otv. red.;
URYVALOVA, N.I., red.

[Technical specifications for paint materials in two
volumes] Tekhnicheskie usloviia na lakokrasochnye ma-
terialy [v dvukh tomakh]. Moskva, Khimiia, 1965. 2 v.
(MIRA 18:12)

ZHUKOVA, A.F., Cand Tech Sci--(diss) "Study and development of
the technological process of welding up miniature electron^{tubes}
~~lamps~~" Mos, 1958. 17 pp (State Committee of the Council of
Ministers USSR on Radioelectronics. State ^{Univ} Sci Res Inst),
120 copies (KL, 25-58, 112)

- 88 -

ZHUKOVA, A. I.

MANTELFEL', A. YA., ZHUKOVA, A. I., DEM'YANOVA, E. K.

Study of the microflora of the rhizosphere of the oak. Micro-
biologia, Moskva 19:6, Nov.-Dec. 50. p. 547-56

1. Botanical Institute, Moscow State University imeni Lomonosov.

CLML 20, 3, March 1951

ZHURAVA, A. I.

"Microorganisms in the Soil of the Northern Caspian and Their Role in the Nutrition of
Certain Benthic Invertebrate Animals." Cand Biol Sci, Moscow Order of Lenin State U
Imeni M. V. Lomonosov, 19 Feb 54. Dissertation (Vechernyaya Moskva, Moscow, 9 Mar 54)

SO: SUN 186, 19 Aug 1954

ZHUKOVA, A.I.

Role of microorganisms in the nutrition of *Nereis succinea* in the Caspian Sea. Mikrobiologiya 23 no.1:46-48 Ja-F '54.

(MLRA 7:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo rybnogo khozyaystva i okeanografii, Moscow.
(Caspian Sea--Marine biology) (Marine biology--Caspian Sea)
(Caspian Sea--Polychaeta) (Polychaeta--Caspian Sea)

ZHUKOVA, A.I.

Total quantity of microorganisms from the bottom sediment of the
north Caspian Sea. Mikrobiologiya 24 no.321-324 Ny-Je '55.

(MLRA 8:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo rybnogo
khozyaystva i okeanografii, Moskva.

(CASPIAN SEA--BACTERIA)

Zhukova, A. I.

ZHUKOVA, A.I.

Significance of micro-organisms for the food supply of fishes. Vop.
ikht. no.9:152-168 '57. (MIRA 11:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo rybnogo
khozyaystva i okeanografii - VNIRO.
(Caspian Sea--Marine biology) (Fishes--Food) (Bacteria)

BORODATOV, V.A., kand.biolog.nauk; DEMIDOV, V.F.; DUKHANIN, A.N.; ZHUKOVA, A.I.; KADIL'NIKOV, Yu.V.; KARPECHENKO, Yu.L.; KORZHOVA, Yu.A.; MAKHOVER, Z.I.; PETROV, G.P.; PROSVIROV, Ye.S.; RUBLEV, N.N.; SOKOLOV, O.A.; SPICHAK, M.K.; KHROMOV, N.S.; SHUIN, V.I., red.; FORMALINA, Ye.A., tekhn.red.

[Study of tuna fish and sardines in the eastern part of the Atlantic Ocean; report on the cruise of the scientific fishery survey expedition of 1957] Issledovaniia tuntsa i sardiny v vostochnoi chastii Atlanticheskogo okeana; reisovyi otchet nauchno-poiskovoi ekspeditsii, 1957 g. Moskva, 1959. 158 p. (MIRA 13:6)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo rybnogo khozyaystva i okeanografii.

(Atlantic Ocean--Tuna fish) (Atlantic Ocean--Sardines)
(Fish, Canned)

ZHUKOVA, A.I.

Distribution and biomass of micro-organisms in the Sea of Azov.
Mikrobiologiya 28 no.3:407-412 My-Je '59. (MIRA 13:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo rybnogo
khozyaystva i okeanografii, Moskva.
(MICROORGANISMS

in Azov Sea, distribution & biomass (Rus))

ZHUKOVA, A.I.

Distribution and biomass of micro-organisms in bottom silts of the
Sea of Azov. Mikrobiologiya 28 no.4:581-585 J1-1g '59.

1. Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo rybnogo
khozyaystva i okeanografii, Moskva. (MIRA 12:12)
(AZOV, SEA OF--BACTERIA)

ZHUKOVA, A.I.

Role of micro-organisms in the productivity of the Sea of Azov.
Trudy Okean kom. 10 no.4:17-22 '60. (MIRA 14:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo
rybnogo khozyaystva i okeanografii.
(Azov, Sea of--Marine microbiology)

ZHUKOVA, A.I.

To be submitted for the International Symposium on Marine Microbiology, October 1980, 25-29 Oct. 1980.

1. Included in the program in a list of titles and authors of papers submitted for presentation at subject Symposium are the following:

1980

AKHIEZER, I. A., Institute of Microbiology,
Academy of Sciences USSR - "Microbiology
of marine microorganisms" (Section V)
KHARIN, S. I., Institute of Microbiology,
Academy of Sciences USSR - "The role of micro-
organisms in the growth and weathering of
mineral deposits" (Section II)
LEVIN, A. I., AKHIEZER, I. A., and CHERNOMAN,
Institute of Marine Biology, Station - "Microbi-
ology of marine microorganisms in some seas of
the Mediterranean basin" (Section V) (to be
presented by I. A. AKHIEZER)
ZHUKOVA, A. I., AKHIEZER, I. A., CHERNOMAN,
Institute of Marine Biology, Station - "The
diversity of marine microorganisms in the
Black Sea in culture" (Section I)
CHERNOMAN, I. A., AKHIEZER, I. A., ZHUKOVA, A. I.,
Institute of Marine Biology, Station -
"Distribution and ecology of autotrophic in-
the Black Sea" (Section IV)
ZHUKOVA, A. I., AKHIEZER, I. A., CHERNOMAN,
Institute of Marine Biology, Station - "All-
probable factors of marine microorganisms and
in the development of marine microorganisms"
(Section VI)
ZHUKOVA, A. I., and CHERNOMAN, I. A., Central Research
Institute of Marine Biology, Station - "Microbiology,
sediment layer of a shallow sea basin in the
transformation of organic substances" (Section VI)
(to be presented by A. I. ZHUKOVA)

ZHUKOVA, A.I.; FEDOSOV, M.V.

Role of microorganisms in the upper layer of bottom sediments of a shallow sea in the transformation of organic matter. Okeanologiya 1 no.3:450-455 '61. (MIRA 16:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo rybnogo khozyaystva i okeanografii.

ZHUKOVA, A.I.

Functional evolution of organisms (USSR)

Report to be submitted for the 4th International Space symposium (COSPAR)
Warsaw, 2-12 June 63 *(on terrestrial life in space)*

ACC NR: AP6019782

SOURCE CODE: UR/0220/66/035/003/0503/0508

AUTHOR: Zhukova, A. I.; Kozlova, V. Kh.

ORG: Institute of Microbiology, AN SSSR, Moscow (Institut mikrobiologii AN SSSR)

TITLE: Viability of microorganisms in the desert soil of Turkmenia

SOURCE: Mikrobiologiya, v. 35, no. 3, 1966, 503-508

TOPIC TAGS: microbiology, soil microbiology, bacteria fungi, microbe viability, soil bacteriology

ABSTRACT:

The study of the viability of microbes in Turkmenian soil is part of an effort to establish values for critical conditions for microbial life. Conditions are extreme in the Turkmenian desert and the authors compare it to theoretical conditions on Mars but note that the temperature variation, of course, is not as great on Earth as on Mars, where the daily variation exceeds 100°C. General conclusions reached were that active microorganisms are found in the upper layers of soils where nitrogen content is 1.1% and water content is 0.1—2.7%. Microbes also

Card 1/2

UDC: 576.095.15/16 : 631.46

ACC-NR: AP6019782

withstood extreme temperature variation well. Soil humidity
is the most important limiting factor for bacterial growth
and its critical level is between 1 and 5%. [WA-50; CBB No. 11]

SUB CODE: 06/ SUBM DATE: 12Apr65/ ORIG REF: 005/ OTH REF: 001

Card 2/2

ZHUKOVA, A. I.

Oscillographic study of the cathode potential during growth of a filiform silver crystal. K. M. Gorbunova and A. I. Zhukova. *Zhur. Fiz. Khim.* (J. Phys. Chem.) 22, 1007-D(1948).--Ag filaments, 5-8 μ thick, were grown in N to 3 N AgNO_3 solns. contg. 0.02-0.2 g. of gelatin per l.; the rate of growth was varied between 50 and 200 μ /min. and the current strength I between 10^{-3} and 30×10^{-3} amp. When the e.m.f. E between the growing Ag cathode and a reference electrode was detd. with an oscillograph at a const. I , E showed regular oscillations with periods τ ranging from 0.1 to 0.8 sec. They are attributed to concn. changes at the cathode (cf. C.A. 40, 4340). Some supersatn. is required before a new layer of Ag is deposited on the basic face of the filament; immediately after the deposition the supersatn. is zero and gradually increases during τ . The thickness of the layer deposited during each period varied between 0.4 and 2 μ .

J. J. Bikerman

Ab. Structure Surface Layers,
Inst. Phys. Chem., AS USSR

ASH-31A METALLURGICAL LITERATURE CLASSIFICATION

ZHUKOVA, A. I.

May 49

USSR/Physics
Crystallization
Filaments, Silver

"Crystallization Mechanisms of Thin Silver
Filaments," K. M. Gorbunova, A. I. Zhukova,
Inst of Phys Chem, Acad Sci USSR, Lab of
Structure of Surface Films, Moscow, 10 1/2 pp

"Zhur Fiz Tvm" Vol XXIII, No 5

Determines increase in rate of elongation of
thread-like crystals of silver during a
decrease in the current of the cell to as
much as 2.5 times. Considerable increase of
I/S (I-current, S-filament section) is not
58/49797

May 49

USSR/Physics (Contd)

accompanied by a similar increase in the
potential of the cathode. Observed relation-
ship of the disturbance in uniformity of I/S
with light currents to the nature of surface-
active impurities, their concentrations, and
the concentration of $AgNO_3$ is studied. A new
form of crystalline filament with depressed
crystalline characteristics is also studied, as
well as high and low ranges of regular crystal-
lization and their relation to the conditions
of electrolysis. Includes pictures. Sub-
mitted 21 Jul 49.

58/49797

GENES, S.G.; ZHUKOVA, A.I.; KALMYKOVA, K.M.; RODKINA, B.S.

Role of insufficiency of the insular apparatus of the pancreas
in a change in blood pressure level. Trudy Ukr.nauch.-issl.inst.
eksper.endok. 18:181-186 '61. (MIRA 16:1)

1. Iz otdela patofiziologii Ukrainskogo instituta eksperimental'-
noy endokrinologii i Ukrainskogo instituta usovershenstvovaniy
vrachey.

(PANCREAS) (BLOOD PRESSURE)

ZHUKOVA, A.I.

Methods of microbiological air research. Mikrobiologiya 31 no.4:
745-757 31-Ag '62. (MIRA 18:3)

ZHUKOVA, A.I.

Micro-organisms of the upper layers of the atmosphere.

Mikrobiologiya 32 no.2:362-370 Mar-Apr '63.

(MIRA 17:9)

ZHUKOVA, A. I.; KONDRATYEV, I. I.;

"On artificial Martian conditions reproduced for microbiological research." (USSR)

Report submitted for the COSPAR Fifth International Space Science Symposium, Florence, Italy
8-20 May 1964.

L 39710-65

ACCESSION NO. 11555 1-1-11

የግንባታው ስራ በጥንቃቄ ይከተላል፡-

Fl^{III}LE: Specimen number: 4166. F. 136. n. position of the first large part of the

SOURCE: Mikrobiologiya, v. 7, no. 6, 1966, pp. 1222-1226.

1 TOPTC TAGS: microorganism contamination, plant parasite, meteorology

ABSTRACT: The microflora of the air in Moscow was investigated by examining cultures obtained on bioassay 50 hours of air which is noted

[illegible]

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L 39710-65

ACCESSION NR: AP5011728

where there is a lot of greenery and sanitary conditions are good. spores
of *Aspergillus* fungi were found in 10% of the total while in the remaining

spores of *Penicillium* fungi were mainly found (31.4%). The percentage of
Penicillium fungi was at a maximum in the daytime, while that of *Aspergillus*

ASSOCIATION: Institut mikrobiologii AN SSSR (Institute of Microbiology, in Russ)

NO REF SOV: 003

OTCHET: 008

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Card 2/2 743

AUTHOR: Zhukova, A. I.; Kondrat'yev, I. I.

TITLE: A chamber simulating Martian conditions for microbiological experiments

ABSTRACT: Kust. ... 1965. 31-33

TOPIC TAGS: bacteria, fungus, exotology, Mars, environment simulation, Mars chamber, microbiology

L 38971.65
ACCESSION NR: AP5009692

environment, possibly due to the fact that the pigment protected them from the harmful effects of UV rays. The spores of mold fungi were more resistant to a Mars environment than microbe spores. Not all the terrestrial forms of microorganisms were able to maintain their viability under simulated Martian conditions. (Fig. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100)

ASSOCIATION: none

SUBMITTED: 04 May 64

ENCL: 02

SUM CODE: 15

NO REF SOV: 000

OTHER: 006

REF PRESS: 3228

Card 2/4

ABOLINA, A.Ye.; ZHUKOVA, A.M.

Use of exercise therapy during the postoperative period following the removal of the lacerated meniscus of the knee joint. Vop. kur., fizioter. i lech. fiz. kul't. 30 no.1:21-22 Jan-F '65.

(MIRA 18:8)

1. Ortopedicheskoye otdeleniye kafedry gosspital'noy khirurgii (zav.- prof. A.M. Aminov) Kuybyshevskogo meditsinskogo instituta.

ABOLINA, A. Ye., kand. med. nauk; ZHUKOVA, A. M.

Conservative treatment of congenital clubfoot in children. Ortop.,
travm. i protez. 22 nn. 8:31-33 (MIRA 14:12)

1. Iz ortopedicheskogo otdeleniya (zav. - prof. A. P. Yevstropov)
kafedry gosspital'noy khirurgii (zav. - prof. A. M. Aminev)
Kuybyshevskogo meditsinskogo instituta.

(FOOT--ABNORMALITIES AND DEFORMITIES)

ZHUKOVA, A. N.

PA 5/49T11

USSR/Chemistry - Rubber, Determination in
Plants
Chemistry - Rubber, Extraction

Jan 48

"Alkali Method of Determining Presence of Caoutchouc
in Plants," O. Yu. Sobolevskaya, Cand Biol Sci, A. N.
Zhukova, Sci Res Inst of Rubber Plants, 4 pp

"Dok v-s Ak Selkhoz Nauk" No 1

Cites disadvantages of existing method of extraction
with organic solvents. It has been largely super-
seded by described alkali method in USSR. Tables
compare results of two methods applied to saghyz
plants. Submitted 13 Sep 47.

5/49T11

KOROVAYEV, Ye.N., prof.; ~~ZHUKOVA, A.N.~~

Cantharides test in rheumatic fever in children. Kaz.med.zhur. no.5:
16-19 S-O '60. (MIRA 13:11)

1. Iz kafedry gosptal'noy pediatrii (zav. - prof. Ye.N.Korovayev)
Kazanskogo meditsinskogo instituta i detskogo otdeleniya Respubli-
kanskoy klinicheskoy bol'nitsy (glavvrach - Sh.V.Bikchurin).
(RHEUMATIC FEVER)
(CANTHARIDES)

ZHUKOVA, A. N.

The Second All-Union Conference on the Preparation and Analysis of High-Purity Elements, held on 24-28 December 1963 at Gorky State University im. N. I. Lobachevskiy, was sponsored by the Institute of Chemistry of the Gorky State University, the Physicochemical and Technological Department for Inorganic Materials of the Academy of Sciences USSR, and the Gorky Section of the All-Union Chemical Society im. D. I. Mendeleyev. The opening address was made by Academician N. M. Zhavoronkov. Some 90 papers were presented, among them the following:

O. P. Malkova, A. N. Zhukova, and N. K. Rudnevskiy. Spectrochemical determination of 6 elements in Ge thin films with a reported sensitivity of 10^{-9} to 10^{-7} g.

(Zhur. ANAL. Khim. 19 No. 6, 1964 p. 777-79)

L 25785-65 EWT(1)/EWT(m)/T/EWP(t)/BEC(b)-2/EWP(b) IJP(a) 00/00

ACCESSION NO. 1810001-6

Author: G. I. Gornovskiy, N. I.

TITLE: A spectrochemical method for the determination of boron in germanium and germanium films

CITED SOURCE: Tr. po khimii i khim. tekhnol. (Gor'kiy), vyp. 1, 1963, 188

TOPIC TAGS: boron determination, boron spectrum, spectroscopy, germanium analysis, germanium film

TRANSLATION: A 10 mg sample, with or without a sublayer, was heated at 100C in the presence of 4 mg tamplol and 1 ml of a 1:1 mixture of HNO₃ and HCl. After

L 25785-65

ACCESSION NR: AR4040348

sensitivity of the analysis was 4×10^{-8} g and the mean error was 20%.

Cara

ACCESSION NR: AP4019506

S/0075/64/019/003/0312/0315

AUTHOR: Malkova, O. P.; Zhukova, A. N.; Rudnevskiy, N. K.

TITLE: A chemical spectrographic method for determining indium, gallium, bismuth, antimony, arsenic in germanium films

SOURCE: Zhurnal analiticheskoy khimii, v. 19, no. 3, 1964, 312-315

TOPIC TAGS: spectrographic analysis, chemical-spectrographic analysis, indium, gallium, bismuth, antimony, arsenic, germanium, quantitative analysis

ABSTRACT: A method was developed for determining In, Ga, Bi, Sb, and As impurities in germanium films spray-coated on a glass plate. The impurities are first extracted from the germanium into carbon powder of spectral purity; the germanium is distilled off as the tetrachloride. The spectrographic analysis is carried out in a d.c. arc, using synthetic standards on a carbon powder base with impurity elements added. The absolute sensitivity of a determination is

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ACCESSION NR: AP4019508

from 5×10^{-7} for As to 5×10^{-9} for Ga and In. The accuracy of the method is $\pm 15\%$. Orig. art. has: 2 figures and 2 tables.

ASSOCIATION: Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete im. N. I. Lobachevskogo (Scientific Research Institute of Chemistry of Gor'ky State University)

SUBMITTED: 23May63

DATE ACQ: 31Mar64

ENCL:00

SUB CODE: CH

NO REF SOV: 004

OTHER: 003

Card 2/2

MAIKOVA, C.P.; ZHUKOVA, A.N.; RUDNEVSKIY, N.K.

Chemical-spectral method for determining indium, gallium,
bismuth, antimony, arsenic in germanium films. Zhur. anal.
khim. 19 no.3:312-315 '64. (MIRA 17:9)

SUDOPLATOV, A.P., doktor tekhn. nauk, prof., red.; YEROFEYEV, V.F.,
otv. red.; VESKOV, M.I., otv. red.; ARKHIPOV, N.A., red.;
ZHUKOVA, A.P., red.; RYKOVA, Z.L., red.; CHIZHOVA, V.V.,
red.; KUPTSOVA, Ye.M., red.; LEVINA, T.I., red.

[Coal mining without the constant presence of miners at
the working faces; materials] Razrabotka ugol'nykh plastov
bez postoyannogo nakhozhdeniya rabochikh v zaboe; materialy.
Pod red. A.F.Sudoplatova. Moskva, TSentr. in-t tekhn.
informatsii ugol'noi promyshl., 1960. 251 p.

(MIRA 18:8)

1. Nauchno-metodicheskoye soveshchaniye po izyskaniyu sistem
razrabotki bez postoyannogo nakhozhdeniya rabochikh v zaboye,
Moscow, 1960. 2. TSentral'nyy institut tekhnicheskoy informa-
tsii ugol'noy promyshlennosti (for Kuptsova, Levina, Arkhipov,
Zhukova, Rykova, Chizheva).

PETRENKO, P.V.; EL'KIN, I.L.; KAZAKOV, S.S.; VOZHIK, D.L.; DENISOV, V.V.; PUCHKOV, V.I.; BOGUTSKIY, N.V.; SAVEL'YEV, I.P.; KOLENTSEV, M.T.; MERKULOV, N.Ya.; VERKLOV, V.A.; OVSYANNIKOV, P.A.; SOSNOV, V.D., otv. red.; CHIZHOVA, V.V., otv.red.; ZHUKOVA, A.P., red.; LEVINA, T.I., red.; PRONINA, N.D., tekhn. red.; OVSEYENKO, V.G., tekhn. red.

[Practice of using cutterloaders] Opyt ispol'zovaniya ochi-
stnykh kombainov; sbornik statei. Moskva, 1962. 102 p.
(MIRA 16:2)

1. Tsentral'nyy institut tekhnicheskoy informatsii ugol'noy
promyshlennosti.

(Coal mining machinery)

ZHUKOVA, A.P., rukovoditel'; POPOV, I.A., rukovoditel'; RYKOVA, Z.L., rukovoditel'; ARKHIPOV, N.A., starshiy nauchnyy sotrudnik; DZHIMSHLEYSHVILI, Sh.P., starshiy nauchnyy sotrudnik; DMITRIYEV, G.V., starshiy nauchnyy sotrudnik; ZHURAVKOV, M.V., starshiy nauchnyy sotrudnik; ISTOMIN, P.S., starshiy nauchnyy sotrudnik; KURBATOV, A.K., starshiy nauchnyy sotrudnik; METLINA, T.I., starshiy nauchnyy sotrudnik; PUGINA, N.I., starshiy nauchnyy sotrudnik; BOYKOV, M.A., otvetstvennyy red.; BHL'KE, G.V., otvetstvennyy red.; KLEYMENOV, F.N., otvetstvennyy red.; SMOLDYREV, A.Ye., otvetstvennyy red.; SHARAYEV, A.N., otvetstvennyy red.; BUTAZOV, V.V., tekhn.red.; SABBITOV, A., tekhn.red.

[Progressive practices and new equipment] Peredovoi opyt i novaya tekhnika. Moskva, Ugletekhizdat, 1957. 386 p. (MIRA 11:4)

1. Russia (1923- U.S.S.R.) Ministerstvo ugol'noy promyshlennosti. TSentral'nyy institut tekhnicheskoy informatsii. 2. TSentral'nyy institut tekhnicheskoy informatsii Ministerstva ugol'noy promyshlennosti SSSR (for Zhukova, Popov, Rykova, Arkhipov, Dzhimshleyshvili, Dmitriyev, Zhurakov, Istomin Kurbatov, Metlina, Pugina)
(Coal mines and mining)

ZHUKOVA, A. P. Cand Agr Sci -- (diss) ^{Start} "Generation of the flower buds ⁱⁿ apple trees in connection with the periodicity of their fruit bearing." Tashkent, 1959. 20 pp (Uzbek Acad Agr Sci. Tashkent Agr Inst), 150 copies (KL, 52-59, 123)

ZHUKOVA, A.S.

Geochemistry of germanium. Trudy Inst. min., geokhim. i kristalloghim.
red. elem. no. 3:26-43 '59. (MIRA 14:5)
(Germanium)

ZHUKOVA, A. S.

31

PHASE I BOOK EXPLOITATION

867/5740

Akademiya nauk SSSR. Institut mineralogii, geokhimi i kristallografii redkikh elementov

Voprosy mineralogii, geokhimi i genezisa koncentrovdennykh redkikh elementov
(Problems in Mineralogy, Geochemistry, and Deposit Formation of Rare Elements)
Moscow, Izd-vo AN SSSR, 1960. 253 p. (Series: Itogi Nauki i Tekhn., vyp. 4) Errata
printed on the inside of back cover. 2,200 copies printed.

Chief Ed.: K. A. Vlasov, Corresponding Member, Academy of Sciences USSR;
Resp. Ed.: V. V. Lyakhovich; Ed. of Publishing House: L. B. Tarasov;
Tech. Ed.: P. S. Kashina.

PURPOSE: This book is intended for geologists, mineralogists, and petrographers.

COVERAGE: This is a collection of 25 articles on the formation, geology,
mineralogy, petrography, and geochemistry of deposits of rare elements in
Siberia and [Soviet] Central Asia. The distribution and characteristics of
rare elements found in these areas as well as some quantitative and qualitat-
ive methods of investigating the rocks and minerals in which they are found.

Card 1/6

31

Problems in Mineralogy (Cont.)

677/5740

or with which they are associated, are discussed. Two articles present an economic investigation of the possibilities of industrial extraction and utilization of selenium, tellurium, and hafnium. No personalities are mentioned. Each article is accompanied by references.

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EGP/5740

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Card 3/6

31

Problems in Mineralogy (Cont.)

USSR/5749

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31

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Card 5/6

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AVAILABLE: Library of Congress

Card 6/6

JA/ann/mss
11-14-61

1. MERKULOV, M.D.; ZHUKOVA, A.V.
2. USSR (600)
4. Agricultural Machinery
7. New machines for preparing seeds and sowing peanuts, Engs. M.D. Merkulov, A.V. Zhukova, Sel'khoz mashina no. 5, 1953.
9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953. Unclassified.

ZHUKOVA, A.V.

How to re-equip combines for the harvest of gold-of-pleasure
and mustard. Nauka i pered.op.v sel'khoz. 7 no.6:28-29 Je '57.
(MIRA 10:7)

1. Nauchnyy sotrudnik Vsesoyuznogo nauchno-issledovatel'skogo
instituta maslichnykh i efirovaslichnykh kul'tur.
(Gold-of-pleasure--Harvesting) (Mustard--Harvesting)

ZHUKOVA, D.Ya.; FILICHEVA, T.B.

Determination of dyestuff concentration in colored mother liquor and in dyed viscose. Khim.volok. no.5:64-67 '62.
(MIRA 15:11)

1. Klinskiy kombinat iskusstvennogo i sinteticheskogo volokna.

(Dyes and dyeing--Rayon)

FINKEL'SHTEYN, A.I.; ZHUKOVA, G.A.

Photocolorimetric determination of small amounts of cyanates.
Zav. lab. 30 no.8:943 '64.

(MIRA 18:3)

1. Dzerzhinskiy filial Gosudarstvennogo nauchno-issledovatel'skogo
i proyektного instituta azotnoy promyshlennosti i produktov
organicheskogo sinteza.

ZHUKOVA, G.F.; MAKSIMOV, Ye.V., nauchnyy rukovoditel' raboty, kand. geograf.
nauk

Some results of meteorological observations in the highland of
the Kirghiz Alatau. Uch. zap. Ped. inst. Gerts. 239:153-159 '64.
(MIRA 18:3)

MOZHAYEVA, L.V., kand. biolog. nauk, dotsent; ZHUKOVA, G.M., aspirant

Microscopic observation of mitochondria in plant cells. Izv.
TSKHA no.1:29-37 '63. (MIRA 16:7)

(Mitochondria) (Plant cells and tissues)

MOZHAYEVA, L.V.; ZHUKOVA, G.M.

Microscopic observations of the mitochondria in plant cells. Dokl.
AN SSSR 148 no.6:1415-1417 F '63. (MIRA 16:3)

1. Predstavleno akademikom A.L.Kursanovym.
(Mitochondria) (Plant cells and tissues)

BEKAURI, N.V.; BABENKO, Z.I.; ZHUKOVA, G.N.; MOISEYEVA, Ye.I.

Effect of an interruption of the central pathways of the sensory innervation of the eye on the secretory activity of the ciliary body. Fiziol.zhur. 51 no.3:325-329 Mr '65.

(MIRA 18:5)

1. Laboratoriya fiziologii vegetativnoy nervnoy sistemy i nervnoy trofiki Instituta fiziologii imeni Pavlova AN SSSR, Leningrad.

ZHUKOVA, G.P.; LEONTOVICH, T.A.

Characteristics of the neuronal structure and topography of the
reticular formation in Carnivora. Zhur.vys.nerv.deiat 14 no.1:
124-147 Ja-F '64. (MIRA 17:6)

1. laboratoriya neyrogistologii Instituta mozga AN SSSR.

ZHUKOVA, G.P. (Moskva, d-315, 1-y Baltiyskiy per., 3/25, kv.22)

Characteristics of the structure of gemmules in the spine and
medulla oblongata. Arkh. anat. gist. i embr. 41 no.7:58-64 J1 '61.
(MIRA 15:2)

1. Laboratoriya neyrogistologii (zav. - prof. G.I.Polyakov) Instituta
mozga AMN SSSR.
(SPINE__INNERVATION) (MEDULLA OBLONGATA__INNERVATION)

MOZHAYEVA, L.V., dotsent, kand. biologicheskikh nauk; ZHUKOVA, G.M.,
aspirantka

Plant mitochondria and their participation in the absorption of
water by roots. Izv. TSKHA no.3:87-97 '64.

(MIRA 17:11)

1. Kafedra fiziologii rasteniy Moskovskoy sel'skokhozyaystvennoy
akademii imeni Timiryazeva.

LEONTOVICH T. A. and ZHUKOVA G. P. (Moscow, USSR)

"The topography of the reticular formation in the brain
and spinal cord of carnivores"

Report submitted to the 7th International Congress of Neurology
Rome, Italy, 10-15 Sep 61

ZHUKOVA, G.P. (Moskva, D-315, 1-y Baltiyskiy per., 3/25, kv.22)

Some data on synapses in the spinal cord and medulla oblongata.
Arkh. anat. gist. i embr. 39 no. 12:72-80 '60. (MIRA 14:2)

1. Laboratoriya neyrogistologii (zav. - prof. G.I. Polyakov)
Instituta mozga AMN SSSR.
(SPINAL CORD) (MEDULLA OBLONGATA)

ZHUKOVA, G. S. Cand Biol Sci Sci Res Inst of Potato Culture

"Checkrow-hill method of planting and sowing cultivated crops."

SOURCE: 3st. v shkole, No 1, pp 21-29, Jan/Feb 54

ZHUKOVA, G.S., kandidat biologicheskikh nauk.

Fertilizing the soil and treating it for spring sowing. Est.v shkole
no.2:54-57 Mr-Ap '56. (MLRA 9:7)

1.Nauchno-issledovatel'skiy institut kartofel'nogo khozyaystva.
(Tillage) (Fertilizers and manures)

USSR / Cultivated Plants. Potato. Vegetables. Melons. M-4

Abs Jour: Ref Zhur-Biol., 1958, No 16, 72958.

Author : Zhukova, G.S.

Inst : Not given.

Title : Results of Scientific Investigations on Planting
Depths.

Orig Pub: Kartoffel', 1957, No 2, 59-63.

Abstract: Generalized data of many experimental establishments on the problem of planting depth of potatoes in different soil-climatic zones. For non-chernozem belts, according to a majority of experiments, the best results were obtained by laying the tubers in at 5, 6, 7 and 8 cm. It is proposed to review the problem of planting depth of potatoes in the non-chernozem zone by conducting experiments on

Card 1/2

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ACCESSION NR: AP4034716

S/0064/64/000/004/0307/0310

AUTHOR: Khitrov, V. A.; Zadorozhnyy, V. P.; Smol'yaninov, I. S.; Zhukova, G. P.;
Dugin, N. A.; Konyayev, B. Ya.

TITLE: Use of bottoms from SK production as acid corrosion inhibitors.

SOURCE: Khimicheskaya promyshlennost', no. 4, 1964, 307-310

TOPIC TAGS: corrosion inhibitor, rubber production byproduct, still bottom, SK
rubber production, saturated alcohol, unsaturated alcohol, saturated hydrocarbon,
unsaturated hydrocarbon, unpolymerisable hydrocarbon, acid corrosion inhibitor,
inhibition mechanism, chemisorption

ABSTRACT: The effectiveness of various cuts of still bottoms from rubber produc-
tion as acid corrosion inhibitors for steels and copper was investigated. Three
mixtures were examined: (1) foam reagents (PR) obtained from still bottoms
remaining after distillation of technical butanol and comprising 25-35% saturated
and unsaturated C₆ and C₈ alcohols, 3-5% butanol, 25-30% hydrocarbons, 30-35% heavy
ends and traces of phenols and aldehydes; (2) still bottoms (KO) comprising low
boiling saturated and unsaturated hydrocarbons separated from divinyl (35-45C

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ACCESSION NR: AP4034716

fraction contained to 40% amylene and piperazine; 65-80C fraction contained to 70% hexylene and hexadiene and small amounts of benzene, toluene, hexene; (3) motor fuel (MT) comprising a mixture of unpolymerisable hydrocarbons from washed still bottoms. The corrosion inhibiting effects of these products were tested at 0-80C as follows: PR, corrosion of low carbon steel O8 in 1 and 7N HCl and H_2SO_4 ; PR and KO, corrosion of stainless steel 1Kh18N9T in 1 and 7N HCl, and PR, KO and MT, corrosion of copper in 3N HNO_3 . PR effectively retarded corrosion of steel in H_2SO_4 and HCl and of copper in HNO_3 . Addition of 0.1 wt.% KI increased the effectiveness (at 80C, by over 2000 times). 2.5% PR plus 0.5% sodium arsenite almost completely prevented corrosion of O8 steel at 80C in 1N HCl. PR almost prevented corrosion of the stainless steel in 1N HCl and retarded corrosion in 3N HCl; corrosion in 7N HCl was very rapid after 6-7 hours. It is suggested the inhibition mechanism involves chemisorption of the PR components on the metal surface. PR and KO inhibited corrosion of copper in HNO_3 below 20C; MT was not especially effective. Orig. art. has: 3 figures and 2 tables.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

Card 2/3

ACCESSION NR: AP4034716

SUB CODE: MT, OC

NO REF SOV: 008

OTHER: 000

Card

3/3

ZHUKOVA, G.P.

Characteristics of neuronal structure and interneuronal connections in the brain stem and spinal cord and their functional significance in carnivora. Zhur. vys. nerv. deiat. 14 no. 4:714-725 J1-Ag '64. (MIRA 17:12)

1. Institute of Brain, U.S.S.R. Academy of Medical Sciences, Moscow.

ZHUKOVA, G.P.; LEONTOVICH, T.A.; SAVICH, K.V.

Differentiation of neurons of the cerebral hemispheres in mammals.
Arkh.anat.gist.i embr. 31 no.1:3-14 Ja-Mr '54. (MLRA 7:4)

1. Iz Instituta mozga Ministerstva zdavookhraneniya SSSR (direktor -
deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR professor S.A.
Sarkisov).

(Brain)

ZHUKOVA, G.P. (Moskva, B-14, 2-ya Boyevskaya, d. 6, kv. 11)

Neuronal structure of the spinal cord [with summary in English].
Arkhnat.gist. 1 embr. 35 no.6:43-51 N-D '58. (MIRA 12:1)

1. Iz laboratorii neyrogistologii (sav. -- prof. G.I. Polyakov)
Institut mozga AMN SSSR.

(SPINAL CORD, anat. & histol.
neuronal structure (Rus))

ZHUKOVA, G. P.; LEONTOVICH, T. D. (Moskva)

Ob osobennostyakh struktury i suyazey retikulyarnoy formatsii

report submitted for the First Moscow Conferency on Reticular Formation,
Moscow, 22-26 March 1960.

ZHUKOVA, G.P.; KHITROV, V.A.

Kinetics of the self-dissolution of 1Kh18M9T stainless
steel in hydrochloric acid solutions. Izv.Vor.gos.ped.
inst. 47:67-77 '64. (MIRA 18:11)

ZHUKOVA, G.P.

Neural structure of the vestibular nuclei in Carnivora, Arkh. anat.,
gist. 1 embr. 49 no.7:65-75 J1 '65.

(MIRA 18:10)

1. Laboratoriya neyrogistologii (zav. - prof. G.I. Polyakov)
Instituta mozga AMN SSSR, Moskva.

ZHUKOVA, G. Ya.

Qualitative composition of the plastid pigment complex of
the green embryos in horse beans. Bot. zhur. 48 no.9:1380-
1382 S. '63. (MIRA 16:11)

1. Botanicheskiy institut imeni V.L. Komarova AN SSSR,
Leningrad.

IOFFE, M.D.; ZHUKOVA, G.Ya.

Culture of isolated angiosperm embryos in an artificial medium.
Bot. zhur. 50 no.8:1157-1182 Ag '65. (MIRA 18:10)

1. Botanicheskiy institut imeni V.L. Komarova AN SSSR, Leningrad.

ZHUKOVA, G.Ya.

Qualitative composition of the pigment complex of plastids
in the green embryos of *Vicia faba* L.; qualitative composition
of xanthophylls. Bot.zhur. 50 no.11:1601-1602 N '65.

(MIRA 19:1)

1. Botanicheskiy institut imeni V.L.Komarova AN SSSR, Leningrad.
Submitted September 18, 1964.

ZHUKOVA, I. A.

Technology

Lenin-Stalin plan for the electrification of U.S.S.R. and establishment of material-technical base of communism, Stalingrad, 1951.

Monthly List of Russian Accessions, Library of Congress, December 1952. UNCLASSIFIED

KIRILLIN, V.A.; SHEYNOLIN, A.Ye.; CHERHOVSKOY, V.Ya.; ZHIKOVA, I.A.

Experimental determination of the enthalpy of niobium in the
temperature range 600-2600°K. Teplofiz. vys. temp. 3 no.3:
395-400 My-Je '65. (MIRA 18.8)

1. Nauchno-issledovatel'skiy institut vysokikh temperatur, Moskva.

KIRILLIN, V. A.; SHEYNDLIN, A. Ye.; CHEKHOVSKIY, V. Ya.; ZHUKOVA, I. A.

"Thermodynamic properties of niobium in the temperature range from 0°K to the melting point, 2740°K."

report submitted for 3rd Symp on Thermophysical Properties, Purdue Univ, Lafayette, Ind., 22-25 Mar 65.

CHEKHOVSKOY, V. Ya.; KIRILLIN, V. A.; SHEYNDLIN, A. Ye.; ZHUKOVA, I. A.

"Thermodynamic properties of niobium in the temperature range from 0°K to the melting point, 2740°K."

paper accepted for presentation at 3rd Symp on Thermophysical Properties, Lafayette, Ind, 22-26 Mar 65.

Inst of High Temperatures, Moscow.

L 8991-66 EMT(1)/EMP(e)/EMT(m)/ETC/EPF(n)-2/ENG(n)/EMP(t)/EMP(k)/EMP(a)/EMP(b)
 ACC NR: AP5016695 EWA(h)/ETC(m) SOURCE CODE: UR/0294/65/003/003/0395/0400

IJP(c) JD/WW/JW/JG
 AUTHOR: Kirillin, V. A.; Sheyndlin, A. Ye.; Chekhovskoy, V. Ya.; Zhukova, I. A.

ORG: Scientific Research Institute of High Temperatures (Nauchno-Issledovatel'skiy institut vysokikh temperatur)

TITLE: Experimental determination of the enthalpy of niobium in the 600 to 2600°K temperature range

SOURCE: Teplofizika vysokikh temperatur, v. 3, no. 3, 1965, 395-400

TOPIC TAGS: enthalpy, high temperature metal, powder metallurgy, heat capacity

ABSTRACT: The method of mixing is used to determine the enthalpy of niobium in the temperature range of 582°K to 2587°K. The calorimeter and oven used in the experiment were placed in a vacuum chamber and it is shown that results obtained at 10^{-2} to 10^{-3} mm Hg pressure agree with those obtained in an argon atmosphere. The measurements were made on samples produced by powder metallurgy and electric arc methods. No difference in the results was found. A detailed description of measurements which were necessary to assure minimum error is presented. The effect of vacancies at high temperatures was observed and its effect on the accuracy is considered. The results are presented in graphical and table form. In addition to the enthalpy measurement, the heat capacity was determined in a temperature range 273.15°K to 2740°K. Orig. art.

UDC: 536.722:546.882

Card 1/2

L 8991-66

ACC NR: AP5016695

has: 1 figure, 4 tables, 2 formulas.

SUB CODE: 11,20/

SUBM DATE: 03Oct64/

ORIG REF: 010/

OTH REF: 006

Card 2/2

(A) L 11902-66 EWT(1)/EWT(m)/EWT(n)/ETC(F)/EPF(n)-2/ENG(m)/I/EMP(i)/
 ACC NR: AP6001909 EWP(b)/ETC(m) UR/0294/65/003/006/0860/0865
 IJP(c) JD/JW/JG
 AUTHOR: Kirillin, V.A.; Sheyndlin, A.Ye.; Chekhovskiy, V.Ya.; Zhukova, I.A.
 ORG: High Temperature Research Institute (Nauchno-issledovatel'skiy institut vysokikh temperatur)
 TITLE: Thermodynamic properties of niobium in the temperature interval
 SOURCE: Teplofizika vysokikh temperatur, v.3, no.6, 1965, 860-865
 TOPIC TAGS: niobium, thermodynamic property, enthalpy, entropy
 ABSTRACT: The enthalpy and entropy of niobium in the temperature interval 0-273°K were calculated on the basis of averaged values of the actual heat capacity, using the following equations:

$$H_T - H_0 = \int_0^T c_p dT = \sum_{i=0}^n [1/2(c_{p,i+1} + c_{p,i})(T_{i+1} - T_i) + \Delta H_{i+1}] \quad (1)$$

$$S_T - S_0 = \int_0^T c_p d(\ln T) = \sum_{i=0}^n [1/2(c_{p,i+1} + c_{p,i})(\ln T_{i+1} - \ln T_i) + \Delta S_{i+1}] \quad (2)$$

Card 1/2

UDO: 546.882:536.63+536.722+536.75+536.77

L 11902-66

ACC NR: AP6001909

Here H_0 and S_0 are the enthalpy and entropy at 0°K . The following equations were used for calculation of the enthalpy and entropy in the temperature interval from 273.15 to 2740°K:

$$H_r - H_0 = 5,499T + 6,328 \cdot 10^{-4} T^2 + \\ + 1354 \cdot 10^3 \exp \left(- \frac{19,53 \cdot 10^3}{T} \right) - 440,7 \text{ kcal/e-at}, \quad (5)$$

$$S_r - S_0 = 12,662 \lg T + 12,656 \cdot 10^{-4} T + \\ + 69,35 \left(1 + \frac{19,53 \cdot 10^3}{T} \right) \exp \left(- \frac{19,53 \cdot 10^3}{T} \right) - 22,995. \quad (6)$$

The results of the calculations are presented in a table and in empirical equations. Orig. art. has: 7 formulas, 3 figures, and 1 table.

SUB CODE: 11,20/ SUBM DATE: 05Nov64/ ORIG REF: 005/ OTH REF: 012

Card 2/2

PREYDLIN, L.Kh.; ZHUKOVA, I.F.; MIRONOV, V.F.

Effect of the structure of unsaturated organosilicon compounds
on the rate of their hydrogenation. Izv. AN SSSR. Otd.khim.nauk
no.7:1269-1274 J1 '61. (MIRA 14:7)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.
(Silicon organic compounds) (Hydrogenation)

L 22836-66 EWT(d)/EWT(1)/EWT(m)/EPF(n)-2/T/EGP(t) JF/WW/JB/30
 ACC NR: AP6003752 SOURCE CODE: UN/0131/66/008/001/0009/0012

AUTHOR: Chekhovskoy, V. Ya.; Zhukova, I. A.

ORG: Scientific Research Institute of High Temperatures, Moscow (Nauchno-issledovatel'skiy institut vysokikh temperatur)

TITLE: Energy of formation and concentration of vacancies in niobium, measured by the mixing method

SOURCE: Fizika tverdogo tela, v. 8, no. 1, 1966, 9-12

TOPIC TAGS: niobium, crystal vacancy, enthalpy, specific heat, crystal impurity, temperature dependence

ABSTRACT: In view of the fact that earlier data on niobium were obtained by the modulation method, whereas the mixing method is most widely used at present, the authors have obtained experimental data on the enthalpy of niobium in the temperature interval 600--2600K and determined from these data the energy of vacancy production and the vacancy concentrations in niobium at high temperatures. The enthalpy was measured with a bulk calorimeter with isothermal shell. The samples used were 99.81 and 99.47% pure at lower temperatures, and even purer at higher temperatures. The procedures used for the tests and for the data reduction are briefly described. The temperature dependence of the specific heat at constant

Card 1/2

L 22836-66

ACC NR: AP6003752

pressure was found to satisfy the formula $C_p = 5.672 + 6.328 \times 10^{-4} T$ (cal-g-at-deg) + $[136 \times 10^4 / (T - 273.15)] \exp(-19.6 \times 10^3 / T)$. The energy of vacancy production was found to be 39 kcal/g-at, and the vacancy concentration was found to be $C = \exp(S/R) \exp(-U/RT) = 35 \exp(-3900/RT)$, with accuracy $\pm(15-20\%)$. The differences from results obtained by the modulation method are attributed to the influence of impurities. Orig. art. has: 3 figures and 6 formulas.

SUB CODE: 20,11/ SUBM DATE: 27May65/ ORIG REF: 009/ OTH REF: 004

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5 (3)

AUTHORS:

Freydlin, L. Kh., Balandin, A. A.,
Zhukova, I. F., Yakovlev, I. P.

SOV/62-59-9-20/40

TITLE:

Investigation of the Selective Effect of Catalysts. Communication 3. Hydration of Isoprene on a Skeleton Nickel Catalyst

PERIODICAL:

Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 9, pp 1640 - 1645 (USSR)

ABSTRACT:

The hydration of isoprene on a skeleton nickel catalyst was investigated without (Fig 1) and with the addition of pyridine (Fig 2), and under pressure. The step-by-step hydration of the isoprene was established by determining the diene content in the catalyst before and after the consumption of 1 mol of hydrogen. After consumption of 1 mol of H no diene could be detected in the catalyst, which confirms the stepwise hydration. The diene was determined according to B. N. Afanas'yev (Ref 6) or A. Baeyer (Ref 7). The authors found that the step-by-step hydration occurs as well with as without pyridine and that at experiments with small quantities of pyridine the reaction proceeds only to the formation of monocolefines. The influence of the quantity pyridine/catalyst surface and the influence isoprene/catalyst surface (Tables 3,4) was investigated concerning Ni + pyridine

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Communication 3. Hydration of Isoprene on a Skeleton
Nickel Catalyst

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and found that an excess of pyridine hinders the isoprene hydration. The analysis of the reaction products of the Ni + pyridine experiment was carried out with the Raman spectrum. The two isomer substances 2-methylbutane-1 and 2-methylbutane-2 were present in the catalyzate. At variations of the pressure the selective effect of pyridine remained up to a pressure of 60 atm. Quinoline has the same effect as pyridine. There are 2 figures, 5 tables, and 9 references, 6 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk
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SUBMITTED: December 20, 1957

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5.1190

5(4)

AUTHORS:

Krylov, V.D., Freydlin, L.Kh.,
Zhukova, I.F.

66870

SOV/76-33-11-32/47

TITLE:

Investigation of the Influence of Water Vapor on the Activity
and Structure of the Skeleton Nickel Catalyst

PERIODICAL:

Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 11, pp 2559-2563
(USSR)

ABSTRACT:

The treatment of a skeleton nickel catalyst with water vapor under pressure caused already at low temperatures a decrease in activity. It was assumed (Ref 3) that the decrease in activity is caused by a recrystallization of the catalyst. Therefore the authors investigated the fine-crystalline structure and catalytic activity of skeleton nickel (treated with water vapor under pressure), the structure and activity of nickel (reduced from NiO) and the structure of NiO itself. The fine-crystalline structure was examined according to the harmonic analysis of the interference lines in x-ray pictures and according to the integral semi-width of the lines. The latter were determined with an x-ray diffractometer type URS-50I. The size of the crystal aggregate was determined with the equation of Selyakov-Scherrer. The NiO obtained by

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Nickel Catalyst

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oxidation of the skeleton nickel, was treated under pressure 250, 215, 200, 130 and 150°C with water vapor (Table), subsequently reduced with hydrogen and the activity was investigated at the hydrogenation of vinyl phenyl ether in 96% ethanol at 20°C. The irreversible decrease in the catalyst activity observed is not caused by the growth of the crystal aggregate, but seems to be due to an additional aggregation (with decrease in the active catalyst surface) of the aggregate. Experiments with a water vapor treatment of the skeleton nickel and subsequent checking of the catalytic activity showed that the decrease depends very much on the pressure at the water vapor treatment (Fig 2). A strong growth of the crystal aggregate (almost to the recrystallization) was observed. At a treatment of the catalyst with a mixture of water vapor - carbon dioxide, no recrystallization could be observed and a further hydrogen treatment of the catalyst caused a noticeable recovery of the catalytic activity. A nitrogen treatment under pressure of the skeleton nickel increased the aggregate of the catalyst to a small degree ✓

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while the catalytic activity was completely restored by a
treatment with hydrogen. There are 3 figures, 1 table, and
5 references, 3 of which are Soviet.

ASSOCIATION: Akademiya nauk SSSR, Institut organicheskoy khimii im.
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Organic Chemistry, imeni N.D. Zelinskiy) ✓

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5(3)

SOV/20-124-3-30/67

AUTHORS:

Freydlin, L. Kh., Balandin, A. A., Academician, Zhukova, I.F.

TITLE:

The Selective Hydrogenation of the Acetylene Bond in Butine-2-Diol-1,4 Into the Ethylene Bond on a Nickel Catalyst
(Selektivnoye gidrirovaniye atsetilenovoy svyazi butin-2-diola-1,4 v etilenovuyu na nikelevom katalizatore)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 3, pp 598-601 (USSR)

ABSTRACT:

It is a well-known fact that, in the presence of pyridine (or quinoline), acetylene hydrocarbons are selectively hydrogenated into ethylene hydrocarbons on a skeletal nickel catalyst. Two experiments were carried out: (1) at normal pressure, 20°C, and strong shaking; (2) at increased pressure, in a rotating autoclave. Ethanol, methanol, dioxane, and dimethyl formamide were used as solvents. In ethanol or methanol only, butinediol is quickly hydrogenated into butanediol. However, the hydrogen absorption curve points to a gradual hydrogenation. In dioxane the reaction occurs more slowly. After the addition of pyridine, the reaction starts to become selective, the affiliation of the second hydrogen mol is

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